AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claims 1-35: (Cancelled)

Claim 36 (Currently amended): A method of creating replica disks that define a desired replica pattern having flat coplanar land tops that define widths in a range of approximately 80-200 nanometers and groove depths in a range of approximately 20-120 nanometers comprising:

focusing light from a laser in a mastering system to form a focused laser spot on a photosensitive master, the focused laser spot defining a laser spot size, wherein the laser spot size is defined by a full width at half maximum intensity; ~~and~~

laser etching the photosensitive master to form a master pattern that is inverse of the ~~a~~ desired replica pattern, the desired replica pattern defining a track pitch less than 2 multiplied by the laser spot size associated with the laser used to perform the laser etching, wherein the track pitch is less than approximately 700 nanometers, and wherein the laser etching defines master groove bottom widths of the master pattern, which correspond to flat coplanar land tops of the desired replica pattern, substantially independently of a master groove depth of the master pattern;

creating a first generation stamper using the master, the first generation stamper having features that are inverted relative to the master such that the features of the first generation stamper correspond to the desired replica disk pattern;

creating a second generation stamper using the first generation stamper, the second generation stamper having features that correspond to the master pattern; and

PAGE 3/12 * RCVD AT 12/23/2004 1:10:59 PM [Eastern Standard Time] * SVR:USPTO-EFXRF-1/0 * DNIS:8729306 * CSID:651 704 5951 * DURATION (mm-ss):04-16

creating replica disks using the second generation stamper, wherein the replica disks are formed with the desired replica pattern, which is inverted relative to the master pattern to define the flat coplanar land tops with widths in the range of 80-200 nanometers and the groove depths in the range of 20-120 nanometers.

Claim 37 (Previously Presented): The method of claim 36, wherein the desired replica pattern defines a track pitch less than 1.6 multiplied by the laser spot size.

Claim 38 (Previously Presented): The method of claim 36, further comprising laser etching the photosensitive master down to a substrate interface to define flat master groove bottoms that correspond to flat land tops of the desired replica pattern.

Claim 39 (Previously Presented): The method of claim 38, wherein the flat master groove bottoms define widths greater than 25 percent of the track pitch.

Claim 40 (Previously Presented): The method of claim 38, wherein the flat master groove bottoms define widths greater than 35 percent of the track pitch.

Claim 41 (Previously Presented): The method of claim 38, wherein the flat master groove bottoms define widths greater than 50 percent of the track pitch.

Claim 42 (Previously Presented): The method of claim 38, further comprising laser etching the photosensitive master down to the substrate interface to define the flat master groove bottoms that correspond to flat coplanar land tops of the desired replica pattern, wherein the flat coplanar land tops define substantially sharp corners.

Claim 43 (Previously Presented): The method of claim 36, wherein the track pitch is less than or equal to 400 nanometers.

PAGE 4/12 * RCVD AT 12/23/2004 1:10:59 PM [Eastern Standard Time] * SVR:USPTO-EFXRF-1/0 * DNIS:8729306 * CSID:651 704 5951 * DURATION (mm-ss):04-16

Claim 44 (Previously Presented): The method of claim 43, wherein a groove depth in the master pattern is greater than 80 nanometers and a land width of the replica disk pattern is greater than 160 nanometers.

Claim 45 (Previously Presented): The method of claim 36, further comprising:

specifying a thickness of photosensitive material; and

coating a master substrate with the specified thickness of photosensitive material to form the photosensitive master;

wherein laser etching the photosensitive master comprises exposing the photosensitive material to a controlled amount of optical energy using the focused light from the laser; and

exposing the photosensitive material to developer solution, wherein the specified thickness of photosensitive material, the controlled amount of optical energy, and the exposure to developer solution collectively define on the photosensitive master the inverse of the desired replica pattern.

Claim 46 (Previously Presented): The method of claim 36, wherein the desired replica disk pattern defines lands and grooves.

Claim 47 (Previously Presented): The method of claim 36, wherein the desired replica disk pattern defines transducer-detectable surface variations.

Claim 48 (Canceled).

Claim 49 (Previously Presented): The method of claim 48, wherein the replica disks comprise flyable media having flat coplanar replica land tops.

Claim 50 (Currently Amended): A method <u>of creating replica disks that define a desired replica pattern having flat coplanar land tops that define widths in a range of approximately 80-200 nanometers and groove depths in a range of approximately 20-120 nanometers</u> comprising:

PAGE 5/12 * RCVD AT 12/23/2004 1:10:59 PM [Eastern Standard Time] * SVR:USPTO-EFXRF-1/0 * DNIS:8729306 * CSID:651 704 5951 * DURATION (mm-ss):04-16

focusing light from a laser in a mastering system to form a focused laser spot on a photosensitive master, the focused laser spot defining a laser spot size, wherein the laser spot size is defined by a full width at half maximum intensity according to an equation *(constant)(λ)/(NA)*, where the constant is approximately equal to 0.57, λ is a wavelength associated with the laser, and NA is a numerical aperture used in the mastering system; and

laser etching the photosensitive master down to a substrate interface to form a master pattern that is inverse of a desired replica pattern, the desired replica pattern defining a track pitch less than 2 multiplied by the laser spot size associated with the laser used to perform the laser etching, wherein the track pitch is less than approximately 700 nanometers, and wherein the laser etching defines master groove bottom widths of the master pattern, which correspond to flat coplanar land tops of the desired replica pattern, substantially independently of a master groove depth of the master pattern;

creating a first generation stamper using the master, the first generation stamper having features that are inverted relative to the master such that the features of the first generation stamper correspond to the desired replica disk pattern;

creating a second generation stamper using the first generation stamper, the second generation stamper having features that correspond to the master pattern; and

creating replica disks using the second generation stamper, wherein the replica disks are formed with the desired replica pattern, which is inverted relative to the master pattern to define the flat coplanar land tops with widths in the range of approximately 80-200 nanometers and the groove depths in the range of approximately 20-120 nanometers.

Claim 51 (Previously Presented): The method of claim 50, the desired replica pattern defining a track pitch less than 1.6 multiplied by the laser spot size.

Claim 52 (Previously Presented): The method of claim 51, wherein master groove bottoms are flat and define widths greater than 50 percent of the track pitch.

Claim 53 (Previously Presented): The method of claim 52, wherein the track pitch is less than or equal to 400 nanometers.

PAGE 6/12 * RCVD AT 12/23/2004 1:10:59 PM [Eastern Standard Time] * SVR:USPTO-EFXRF-1/0 * DNIS:8729306 * CSID:651 704 5951 * DURATION (mm-ss):04-16

Claim 54 (Currently Amended): A method of creating a master comprising:

specifying a thickness of photosensitive material;

coating a master substrate with the specified thickness of photosensitive material to form a photosensitive master;

focusing light from a laser in a mastering system to a focused laser spot on the photosensitive material of the photosensitive master, the focused laser spot defining a laser spot size, wherein the laser spot size is defined by a full width at half maximum intensity according to an equation *(constant)(λ)/(NA)*, where the constant is approximately equal to 0.57, λ is a wavelength associated with the laser and NA is a numerical aperture used in the mastering system;

exposing the photosensitive material to a controlled amount of optical energy using the focused light from the laser; and

exposing the photosensitive material to developer solution, wherein the specified thickness of photosensitive material, the controlled amount of optical energy, and the exposure to developer solution collectively define on the photosensitive master an inverse of a desired replica pattern, the desired replica pattern defining a track pitch less than 2 multiplied by the laser spot size of the laser, and wherein the track pitch is less than approximately 700 nanometers, and wherein master groove bottom widths of the master pattern, which correspond to flat coplanar land tops of the desired replica pattern, are substantially independent of a master groove depth of the master pattern;

creating a first generation stamper using the master, the first generation stamper having features that are inverted relative to the master such that the features of the first generation stamper correspond to the desired replica disk pattern;

creating a second generation stamper using the first generation stamper, the second generation stamper having features that correspond to the master pattern; and

creating replica disks using the second generation stamper, wherein the replica disks are formed with the desired replica pattern, which is inverted relative to the master pattern to define the flat coplanar land tops with widths in the range of approximately 80-200 nanometers and the groove depths in the range of approximately 20-120 nanometers.

PAGE 7/12 * RCVD AT 12/23/2004 1:10:59 PM [Eastern Standard Time] * SVR:USPTO-EFXRF-1/0 * DNIS:8729306 * CSID:651 704 5951 * DURATION (mm-ss):04-16

Claim 55 (Previously Presented) The method of claim 54, the desired replica pattern defining a track pitch less than 1.6 multiplied by the spot size of the laser.

Claim 56 (Previously Presented) The method of claim 54, wherein the photosensitive material comprises a positive photoresist material and wherein exposing the photosensitive material to developer solution comprises developing the positive photoresist material.

PAGE 8/12 * RCVD AT 12/23/2004 1:10:59 PM [Eastern Standard Time] * SVR:USPTO-EFXRF-1/0 * DNIS:8729306 * CSID:651 704 5951 * DURATION (mm-ss):04-16